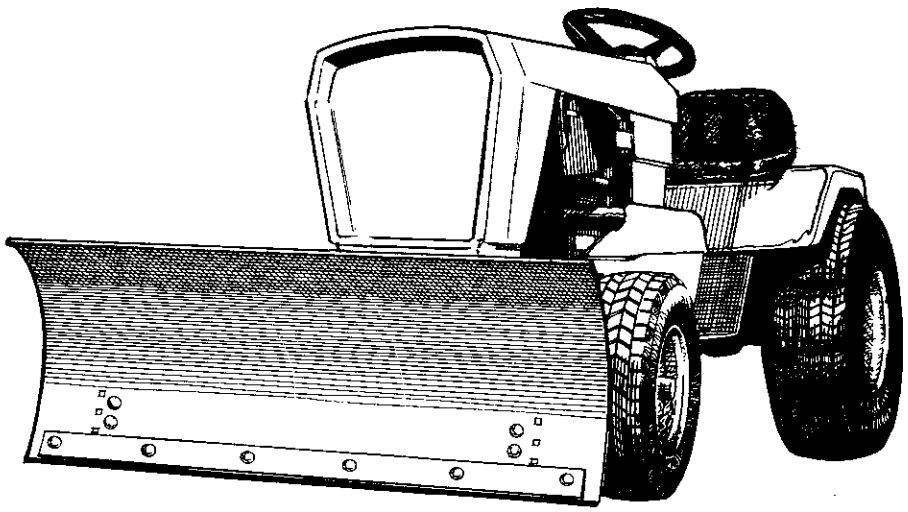
OPERATOR'S MANUAL

42" SNOW PLOW & DOZER BLADE



42" SNOW PLOW & DOZER BLADE
MFG. NO. 1690085
HITCH ASSEMBLY
MFG. NO. 1690087

CAUTION: Read Manual Thoroughly Before Operating

FORM – 1657491
PRINTED IN U.S.A.
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Dear Customer,

Congratulations on your purchase of this snow plow/dozer blade. It has been carefully designed and built to give you years of dependable service. With proper care, it will help you do your snow removal and grading jobs efficiently.

To make sure you get the best use from your snow plow/dozer blade study this manual carefully. Make sure that it is assembled and installed properly, and that all adjustments are done correctly. Be sure that you (and anyone who operates this machine) know how to use the machine safely. Read this manual and the tractor manual thoroughly and become familiar with the controls of the machine before operation.

For your own safety as well as others, study the safety rules in this manual and those in the tractor manual. Review this information often. It is there for your benefit and is important.

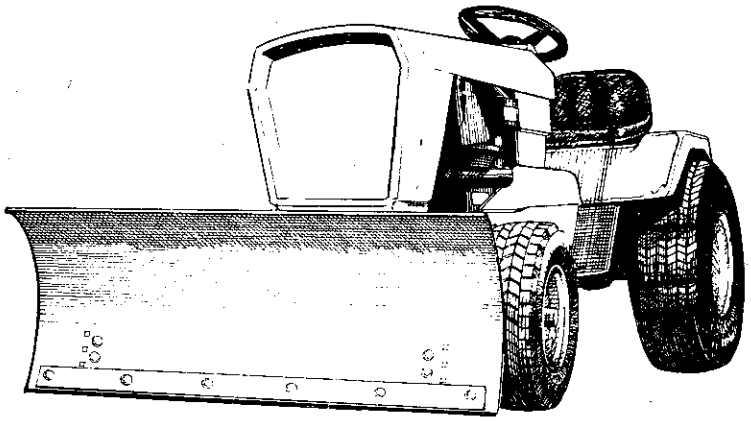
This manual tells how to assemble, install, service, operate and adjust your snow plow/dozer blade. If any help is needed with any of these procedures, your dealer will be happy to help you.

Measurements are given in this manual with metric equivalents in parentheses. For example, behind the measurement 1/8 inch would appear: (3 mm). So, the metric equivalent of 1/8 inch is 3 millimeters.

These metric measurements are provided for your convenience as an aid in converting to the metric system. A list of metric terms and abbreviations used in this manual is provided below.

LIST OF ABBREVIATIONS OF METRIC TERMS

1. m = meter
2. mm = millimeter
3. kg = kilogram



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WARNING

Read these safety rules and follow them closely. Failure to obey these rules could result in loss of control of vehicle, severe personal injury to yourself or bystanders, or damage to property or equipment affecting safety.

Safety Rules

This notation preceding Cautions and Warnings in the text signifies important precautionary steps which, if not properly followed, could result in personal injury or damage to your equipment affecting safety.

General

- Read the operator's manual carefully. Be thoroughly familiar with the controls and proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
- Never allow children to operate the machine. Do not allow adults to operate it without proper instruction.
- Keep the area of operation clear of all persons, particularly small children, and pets.
- Do not carry passengers.
- Make sure:
  a. tractor and attachments are in good operating condition,
  b. all safety devices and shields are in place
  c. and in good working condition, and
  d. all adjustments (skid shoe height, etc.) have been made.

Preparation

- Handle gasoline with care – it is highly flammable.
  a. Use approved gasoline container.
  b. Never remove the cap of the fuel tank or add gasoline to a running or hot engine, or fill the fuel tank indoors. Wipe up spilled gasoline.
- Do not run the engine indoors. Exhaust fumes are dangerous.
- Shift into neutral before attempting to start the engine.
- Wear heavy footwear. Do not operate tractor when barefoot or when wearing open sandals or canvas shoes.

Operation

- Do not allow anyone to use the snow plow/dozer blade unless they have been instructed on how to operate it safely.
- Never attempt to adjust, repair or service the snow plow/dozer blade while the tractor engine is running.
- Do not allow others near the snow plow/dozer blade while it is being used.
- Use the snow plow/dozer blade only in daylight, or good artificial light.
- Always lower the snow plow/dozer blade completely to the ground when leaving it unattended to prevent it from being accidentally lowered and causing injury.
- Always operate the tractor at reasonable speeds to prevent the blade from catching an object and stopping the tractor abruptly.

Assembly and Installation

CONTENT OF SECTION

Before it can be used, the snow plow/dozer blade must be assembled and then installed on your tractor. This section tells you how to do this task as well as how to remove the blade when you have finished plowing or dozing.

ASSEMBLY

To assemble the snow plow/dozer blade, proceed as follows:

1. Insert front of push bar (item F, figure 1) into hitch on rear of blade and align holes for king pin (item D). Then install king pin downward through holes in blade hitch and push bar. Insert spring clip (item M).
2. Using king pin as the pivot, swivel push bar to align holes for pivot pin (item C). Then install pivot pin downward through holes in blade and push bar.
3. Insert prong of guide on lift rod (item I) through hole in upright of push bar (item F). Then install spring clip (item G) to secure lift rod to push bar.

INSTALLATION

To install the assembled snow plow/dozer blade on your tractor, proceed as follows:

1. Lean lift rod (item I, figure 1) against blade. Then drive tractor forward over push bar (item F) until rear of push bar is under front axle of tractor.
2. Completely lower tractor lift arm (item K) using lift lever or optional electric lift on tractor.
3. Stop engine, remove key, and set parking brake.
4. Raise rear of push bar so its arms fit between ears of hitch (item L) at rear of tractor axle. Use two pins (item A) and spring clips (item B) to secure push bar to hitch.
5. Insert hooked end of lift rod (item I) through hole in tractor lift arm (item K). To do this, it may be necessary to loosen lower set collar (item H). Secure lift rod with spring clip (item J).
6. Complete procedures in adjustment section.

REMOVAL

Remove the snow plow/dozer blade from your tractor as follows:

1. Using tractor lift lever or optional electric lift, lower blade completely to ground.
2. Stop engine, remove key, and set parking brake.
3. Remove spring clip (item J, figure 1) and disconnect lift rod (item I) from lift arm (item K). Store spring clip in hole of lift rod.
4. Remove both spring clips (item B) and pins (item A) and lower push bar (item F) to ground. Store pins and spring clips in holes of push bar.

A. Pin
B. Spring Clip
C. Pivot Pin
D. King Pin
E. Blade
F. Push Bar
G. Spring Clip
H. Set Collar
I. Lift Rod
J. Spring Clip
K. Lift Arm
L. Tractor Hitch
M. Spring Clip

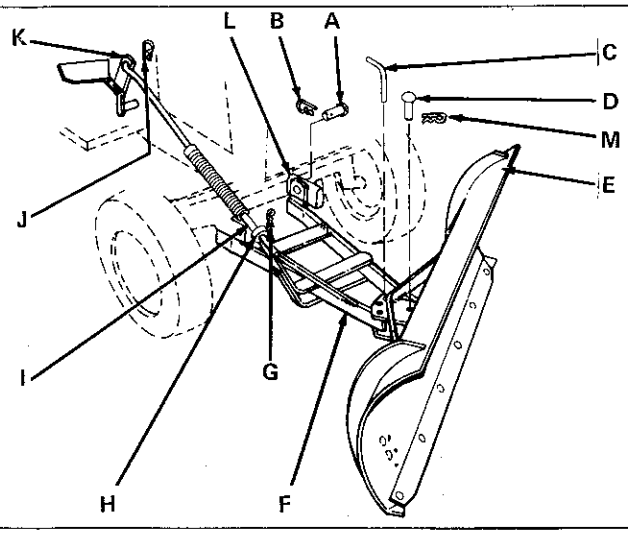


Figure 1. Snow Plow/Dozer

Operation

CONTENT OF SECTION

A brief description of the snow plow/dozer blade controls, followed by the basic operating procedures is given in this section to help you get to know your snow plow/dozer blade and how to operate it safely and efficiently.

CONTROLS

The snow plow/dozer blade is operated using controls on the tractor. Figure 2 shows the locations, names, and functions of these controls.

OPERATING PROCEDURES

The tractor supplies both the power and motion for the snow plow/dozer blade. Therefore, tractor operation is vital to proper operation of the blade. Details for snow plow/dozer blade operation are given in paragraphs that follow. Read all of these paragraphs. Then read the general operating procedure for tractor operation with attachments given in the tractor manual before starting into operation.

⚠ WARNING

Before attempting to inspect, adjust, or service the snow plow/dozer blade, make sure the tractor engine is stopped and the ignition key is removed.

CHECKS BEFORE STARTING

The checks listed below should be performed before each use of the snow plow/dozer blade.

1. Read this manual. Read the tractor operator's manual. Be sure you know safety precautions and the locations and uses of operating controls.
2. Check the snow plow/dozer blade to be sure that it is properly installed on the tractor. Be sure that all nuts, bolts, and spring clips are secure.

RAISING THE BLADE

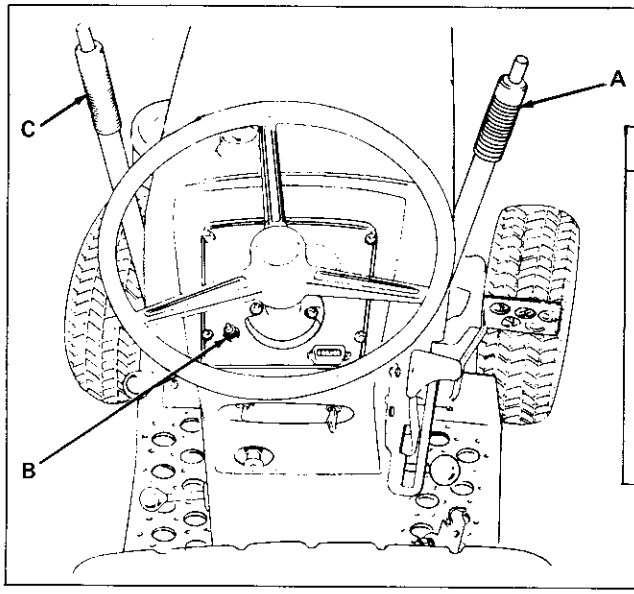
Use the lift lever or optional electric lift switch on the tractor to raise or lower the snow plow/dozer blade.

TRANSPORTING THE BLADE

When you use the tractor to transport the snow plow/dozer blade to and from work areas, it should be fully raised. For maximum ground clearance, the blade should also be angled straight ahead.

⚠ WARNING

Be particularly careful and operate at low tractor speeds in any area where the blade can hook on solid objects. Such objects can jar the tractor or bring it to an abrupt stop.



Item	Name	Function
A	Dual Lift Lever (Optional)	Provides lift control for front-mounted attachments such as the snow plow/dozer blade.
B	Power Lift Switch (Optional)	Controls optional electrically operated power lift for snow plow/dozer blade if item A is not present.
C	Lift Lever (Standard)	Used to raise and lower snow plow/dozer blade if items A and B are not present.

Figure 2. Locations and Functions of Controls

GRADING

For leveling and grading jobs, the blade can be directed straight ahead with the skid shoes set to allow the blade to rest directly on the ground. For grading, adjust blade pressure so the blade floats up and down, following the ground contours. For dozing, increase the blade pressure. To adjust the skid shoes, blade angle, or blade pressure, see the adjustment section of this manual.

Use forward tractor motion to push the dirt to the desired location. Then reverse the tractor and drag the blade backwards for final leveling. Pack down the dirt or gravel by driving the tractor over the leveled area.

SNOW PLOWING

Generally, the blade is angled off to one side for snow plowing. The skid shoes should be adjusted so the blade rests on its edge when plowing paved surfaces. For gravel or other rough surfaces, set skid shoes for desired height. For light snow, the blade can be adjusted to float. For heavier snow, some downward blade pressure will be required. To set blade angle, skid shoes, and blade pressure, see Adjustment section of this manual.

When plowing snow, plan ahead. Use any grade to your advantage. Plow downhill and set the blade angle so the snow is moving downhill as it leaves the blade. For large drifts, bite off small amounts each time instead of attempting to plow a full blade width.

For snow plowing, set engine speed to obtain the needed power. Set transmission gear shift lever or control for tractor speed that allows snow to curl cleanly off the end of the blade. In most cases, you will need rear wheel weights and chains to obtain the traction needed for snow plowing.

Normal Care

CONTENT OF SECTION

Your snow plow/dozer blade was built to provide years of service with only minor care. These minor tasks, however, must be done to keep it in good operating condition and to avoid costly repairs. This section tells you when and how to perform the needed care.

AFTER EACH USE

After each use, check the snow plow/dozer blade to be sure that all pins and spring clips are securely fastened. After grading or dozing jobs, hose down the blade to remove excess dirt. Then lightly oil pivot points and bare metal surfaces to prevent rusting.

While you are performing these tasks, also check the blade wear plate (item A, figure 3). If this plate is worn excessively, it should be replaced. Simply remove the six carriage bolts (item B). Then remove the wear plate and install a new one using the carriage bolts to secure it to the blade.

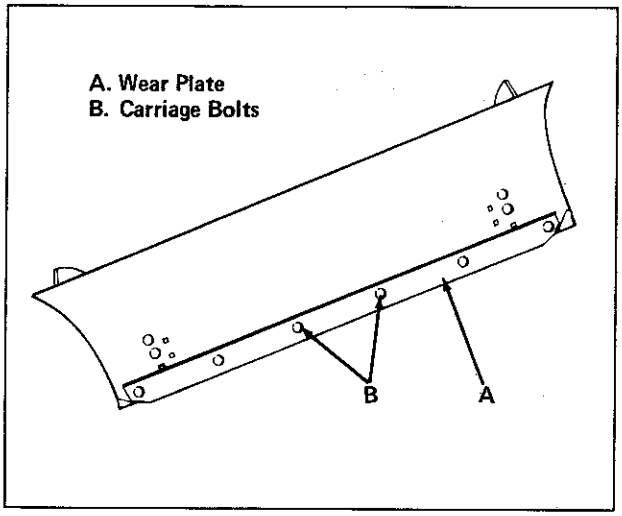


Figure 3. Blade Wear Plate

STORAGE

To store the snow plow/dozer blade for 30 days or more, clean and inspect the blade as you would after each use. Then store the blade in a dry enclosure.

Adjustments

CONTENT OF SECTION

It is important that the snow plow/dozer blade be properly adjusted for the job at hand. This section tells you how to make the needed adjustments.

⚠ WARNING

Before attempting to check or adjust the snow plow/dozer blade, stop engine, remove key, set parking brake, and lower snow plow/dozer blade.

SKID SHOES

Before using the snow plow/dozer blade, the skid shoes (item A, figure 4) should be adjusted for the type of surface to be worked on. For clearing snow from uneven or gravel surfaces, set the skid shoes so the blade rides above the ground. For plowing smooth surfaces or for grading and leveling, set the skid shoes so the blade rides directly on the ground.

To adjust the skid shoes, raise the blade off the ground and block with a few pieces of wood. Then remove the bolts (item B) and move skid shoes up or down for desired height. Reinstall bolts. Be sure both skid shoes are set to the same height.

BLADE ANGLE

The blade can be set straight ahead or angled to either side. To adjust, lift the blade off the ground with the lift lever or optional electric lift on the tractor. Then remove the pivot pin (item C, figure 1) and pivot the blade to the desired angle before reinstalling the pivot pin.

BLADE PRESSURE

The blade will float over minor bumps in the surface or dig into them depending upon the blade pressure adjustment. To adjust, park the tractor and blade on level ground and lower the blade completely. At this point, the gap between the rod guide (item C, figure 5) and the lower set collar (item D) should be about 1 inch (25 mm). If not, loosen setscrew, move set collar and retighten setscrew.

If you want the blade to float, loosen setscrew and move upper set collar (item A) so the gap between it and spring (item B) is about 2 inches (51 mm).

If you want positive blade pressure that causes the blade to dig, loosen setscrew and move upper set collar (item A) so it compresses the spring (item B) 2 to 3 inches (51 to 76 mm). Be sure to retighten setscrew securely. The more the spring is compressed, the greater the blade pressure will be.

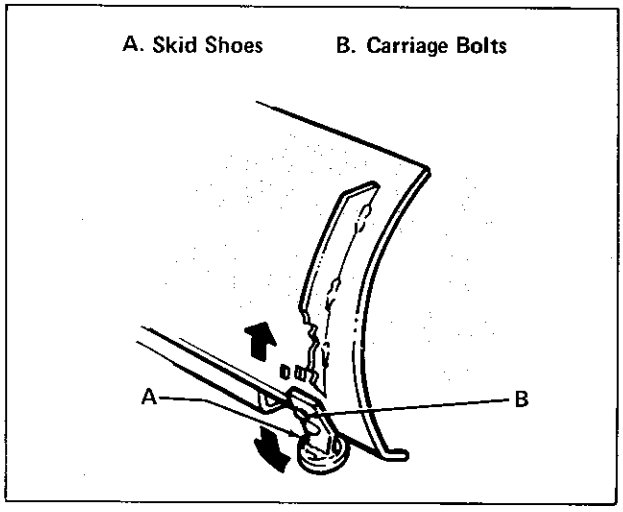


Figure 4. Skid Shoe Adjustment

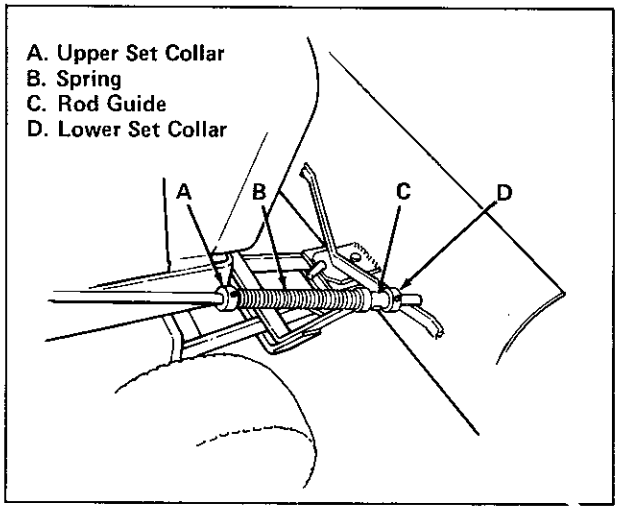


Figure 5. Blade Pressure Adjustment

Specifications

DIMENSIONS	Width	42 Inches (1067 mm)
	Height	15.75 Inches (400 mm)
	Weight	66 Pounds (30 kg)
CONTROLS	Raise and Lower	Tractor Lift Lever or Optional Electric Lift
	Blade Angle	Pivot Pin at Front of Push Bar
BLADE	Material	Heavy Gauge Steel
	Scraper	Hardened, Replaceable
	Mounting	Front Axle
	Front Support	Adjustable Skid Shoes
	Angles	Straight Ahead and 30 Degrees to Either Side
	Clearance	5.5 Inches (140 mm) Maximum
	Effective Width	42 Inches (1067 mm) Straight Ahead
		36.5 Inches (927 mm) at Angle Position

Accessories

There are many optional accessories and attachments available for your tractor to make plowing and dozing easier. See your dealer if you wish to purchase any of the following:

WHEEL WEIGHTS, REAR – improve traction in loose soil or on slippery surfaces.

WHEEL WEIGHTS, FRONT – improve steering.

ELECTRIC LIFT KIT – raises and lowers snow plow/dozer blade and other attachments with the flip of a switch.

DUAL LIFT LEVER – provides separate lift control of front and rear-mounted attachments. Especially useful when using dozer blade and rotary tiller at the same time.

WINTERIZING KIT – includes shield to keep carburetor warm and side-vented gas cap.

CHAINS – provide additional traction.

COUNTERWEIGHT SPRING KIT – makes it easier to lift snow plow/dozer blade.

SNOW CAB – protects operator from weather.

HOURMETER – records engine operating time in tenths of an hour.

REAR LIGHT KIT – lights path when traveling in reverse at night.